

ABSTRACT

Uridine analogs and techniques for making and using uridine analogs are disclosed in this invention. These uridine analogs include nucleoside phosphates having a 5-aminouracil group. These nucleotides can be incorporated into a nucleic acid as an unnatural base, as a 5 substitute for uridine or thymine. The nucleic acid can then be treated with an oxidizing agent and an alkaline solution, which causes cleavage of the nucleic acid at the position of the unnatural base. The nucleoside phosphate analogs can be used in many ways, including measuring chemical interactions between nucleic acids and other compounds, or sequencing nucleic acids. Additional compounds can also be derivitized onto the amino group, allowing 10 other functionalities to be added to the nucleoside phosphate, or to the nucleic acid incorporating the nucleoside phosphate.

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